

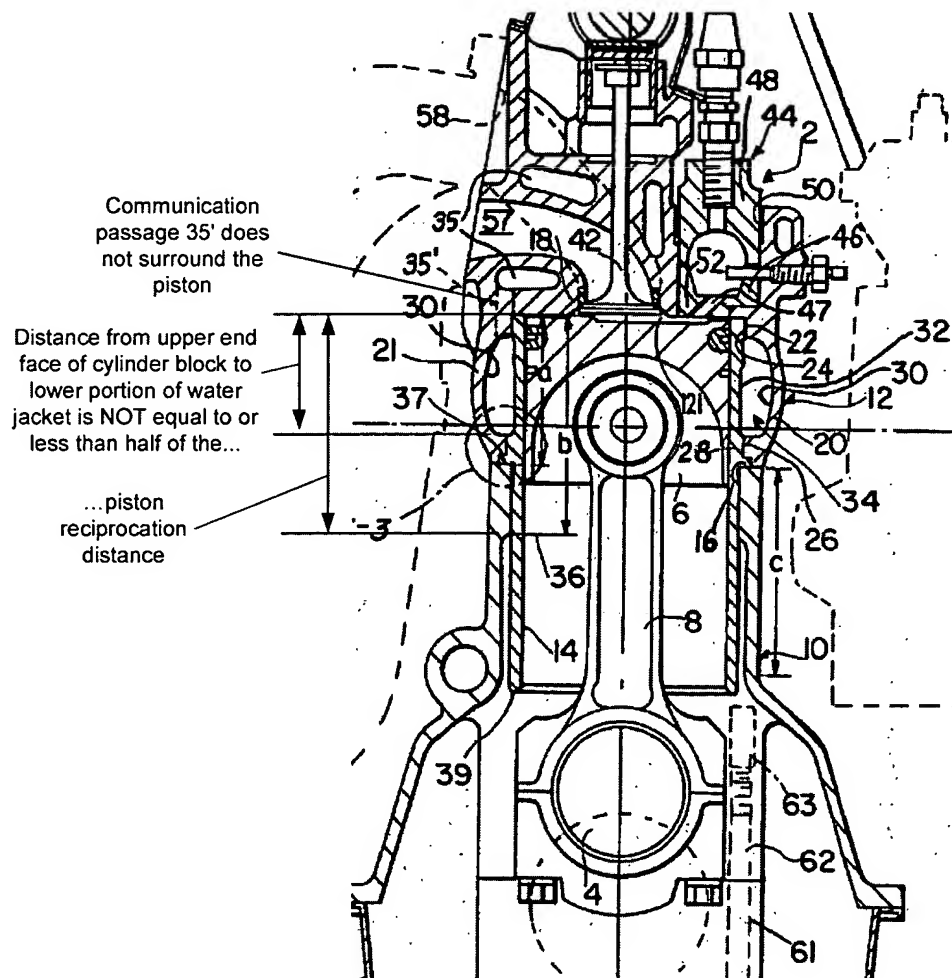
REMARKS

The above amendments and these remarks are responsive to the Office action dated August 16, 2005. In the Office action, claims 1-3, 5, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kanno (U.S. Patent No. 6,752,672) in view of Jones (U.S. Patent No. 4,294,203). Claims 1-3, 5, and 22 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda (U.S. Patent No. 6,793,546) in view of Jones (U.S. Patent No. 4,294,203). Claims 6-9 and 11-21 are indicated as allowed. Applicants thank the Examiner for careful consideration of the application and for the indications of allowability. Applicants respectfully traverse the rejections, but nevertheless amend the claims as shown above and submit the following remarks.

Claims 1, 5, and 22

Claims 1 to 3 have been combined in amended claim 1 to recite structural features of the cylinder head and a dimension of the water jacket. To be specific, the cylinder head is recited to be connected to an upper end face of a cylinder block. One exemplary embodiment illustrating this configuration is shown in Fig. 4 of the subject application. In addition, the water jacket is recited to extend downward from the upper end face of the cylinder block and a dimension of the water jacket from the upper end face of the cylinder block to a lowermost portion of the water jacket in a reciprocation direction of the piston is recited to be equal to or less than a half of a reciprocation distance of the piston so that excess cooling of the cylinder block is inhibited. One potential advantage of the configuration recited in amended claim 1 is that excess cooling of the cylinder block may be inhibited, while suitably cooling a portion of the cylinder block that is located near a combustion chamber.

On the other hand, Jones (US 4,294,203), Kanno (US 6,752,672), and Matsuda (UK 1,479,139), both alone and in combination, fail to disclose the features recited in amended claim 1. Regarding Jones, cavity 34 includes an uppermost end that is lower than an upper end face of the cylinder block, thus the dimension from the upper end face of the cylinder block to a lowermost end of cavity 34 is NOT equal to or less than half of the piston reciprocation distance, rather it is greater than half the piston reciprocation distance. Applicants note that passage 35' in Jones does not surround the piston and thus fails to satisfy the requirement of claim 1 that the water jacket surrounds the piston.



Jones – Annotated Fig. 1

In view of the above, Applicants respectfully submit that Jones, Kanno, and Matsuda, each alone and in combination, fail to disclose or suggest each and every feature recited in claim 1. Therefore, Applicants believe that claim 1, as well as dependent claims 5 and 22 are allowable.

Claims 2-4 and claim 10

Claims 2 through 4 and claim 10 have been cancelled without prejudice.

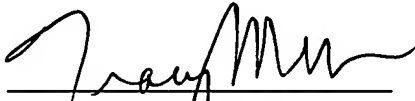
Claims 6-9 and 11-21

These claims have been indicated as allowable.

Applicants believe that this application is now in condition for allowance, in view of the above amendments and remarks. Accordingly, applicants respectfully request that the Examiner issue a Notice of Allowability covering the pending claims. If the Examiner has any questions, or if a telephone interview would in any way advance prosecution of the application, please contact the undersigned attorney of record.


CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, to: Mail Stop AMENDMENT, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on October 14, 2005.


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Respectfully submitted,

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